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## New results on the heavy-flavor and quarkonia measurements with ATLAS

*Saturday, 9 July 2022 09:00 (15 minutes)*

Measurements of heavy-flavor hadron production in heavy-ion collisions provide a powerful tool to study both initial-state effects on heavy-quark production and final-state interactions between heavy-quarks and the quark-gluon plasma. These measurements are performed with the ATLAS detector at the LHC and capitalize on the large statistics of the Run 2 Pb+Pb dataset. This talk presents new results on the azimuthal anisotropy of muons from heavy-flavor decays in Pb+Pb collisions, as well as new results on the nuclear modification factor for heavy-flavor muons. New results sensitive to the role of parton mass and flavour on jet quenching using b-jets will be also presented. b-jets are identified through the semileptonic decays of  $B$ -hadrons into muons, and the measured suppression is compared to those for inclusive jets. Furthermore, final measurements of quarkonia impression to probe the QGP medium properties are discussed. The presented measurements are systematically compared to state-of-the-art theoretical models.

### In-person participation

No

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